

REMARKS

Introduction

Claims 1 – 59 are pending, with claims 1, 13, 32, 49 and 56 being independent. By the foregoing amendments, independent claims 1, 13, 32, 49 and 56 have been amended, as discussed below. In addition, claims 57 – 59 have been amended to correct a minor clerical error.

Examiner Interview

Applicant's representative wishes to thank Examiner Newlin for the interview accorded him on March 24, 2009. During the interview, Applicant's representative explained the differences between the Applicants' claimed invention and the Hornfeldt patent cited in the Office Action. The Examiner suggested amending the claims to provide additional detail regarding the pseudoranges. Accordingly, Applicant provides this amendment.

Claim Rejections - 35 U.S.C. § 103

Claims 1 – 59 remain rejected under 35 U.S.C. § 103 as allegedly being unpatentable over U.S. Patent No. 6,006,097 to Hornfeldt et. al (hereinafter "Hornfeldt") in view of U.S. Patent No. 6,028,537 to Suman et al. (hereinafter "Suman"), and further in view of U.S. Patent Application Publication No. 2002/0021187 to Stenberg (hereinafter "Stenberg").

Based on the following remarks, Applicant respectfully requests that the rejection be reconsidered and withdrawn. In order to establish a prima facie case of obviousness under 35 U.S.C. § 103, each and every element of the claimed invention must be disclosed in the combination of art applied. Because at least one element of Applicant's claimed invention is not disclosed in the combination of applied art, Applicant respectfully submits that no prima facie case of obviousness under 35 U.S.C. § 103 has been established. In particular, the applied documents fail to disclose the following elements recited in Applicant's independent claims, as amended:

(Claims 1 and 13:)

accessing a location of the device, the location determined from pseudo-ranges between the device and a plurality of digital television (DTV) transmitters, the pseudo-ranges calculated from broadcast DTV signals received by the device from the DTV transmitters, wherein each of the pseudo-ranges represents a difference between a time of transmission from the respective DTV transmitter of a component of the respective DTV signal and a time of reception at the device of the component, as well as a clock offset of the device

(Claims 32 and 49:)

means for accessing a location of the device, the location determined from pseudo-ranges between the device and a plurality of digital television (DTV) transmitters, the pseudo-ranges calculated from broadcast DTV signals received by the device from the DTV transmitters, wherein each of the pseudo-ranges represents a difference between a time of transmission from the respective DTV transmitter of a component of the respective DTV signal and a time of reception at the device of the component, as well as a clock offset of the device

(Claim 56:)

a device for receiving broadcast DTV signals from a plurality of DTV transmitters and calculating pseudo-ranges from the received DTV signals, wherein each of the pseudo-ranges represents a difference between a time of transmission from the respective DTV transmitter of a component of the respective DTV signal and a time of reception at the device of the component, as well as a clock offset of the device;

a DTV location server for determining a location of the device from the pseudo-ranges

Hornfeldt appears to disclose a method for determining the position of mobile communication terminals. Hornfeldt describes four embodiments. In each embodiment, a cellular base station transmits a control signal that causes the mobile station to transmit an access burst at a known time (relative to the control signal – col. 5, line 3). In the first and second embodiments, the control signal is referred to as a "HANDOVER COMMAND." In the third and fourth embodiments, the command signal is referred to as a "POSITIONING COMMAND." This arrangement produces a "round-trip delay" which is measured in the base station, and is a

measure of two times the delay between the mobile station and the base station (col. 5, line 62 and FIG. 6).

Firstly, Hornfeldt fails to disclose the use of pseudo-ranges, as required by each of Applicant's independent claims. As defined by Applicant's specification in paragraph [0116], "[E]ach pseudo-range represents the time difference (or equivalent distance) between a time of transmission from a transmitter 108 of a component of the DTV broadcast signal and a time of reception at the user device 102 of the component, as well as a clock offset at the user device." In contrast, Hornfeldt employs a "round-trip delay" that does not require any knowledge of the clock offsets of the mobile stations.

Secondly, Hornfeldt fails to disclose calculating pseudo-ranges from signals received by the mobile stations, as required by each of Applicant's independent claims. The signals received by the mobile stations in Hornfeldt are merely control signals that cause the mobile stations to transmit access bursts. The access bursts are then measured at the base station, not at the mobile stations.

Thirdly, Hornfeldt fails to disclose the use of DTV signals for positioning, as required by each of Applicant's independent claims. The Examiner cites Stenberg for disclosing broadcast DTV signals. However, neither Stenberg, nor any of the other cited documents, discloses the use of DTV signals for positioning. The Examiner asserts that "merely using a new signal type in order to perform the same function does not yield unpredictable results, but rather would be readily predicted given the disclosure of Hornfeldt." Applicant respectfully submits that predictability is not a proper basis for an obviousness rejection.

Furthermore, Applicant respectfully submits that substituting the DTV signals of Stenberg for the cellular signals of Hornfeldt would fail to teach or suggest Applicant's claimed invention. The combination would simply be a use of DTV signals for measuring a round-trip delay, rather than for generating the pseudo-ranges required by each of Applicant's independent claims.

Suman does nothing to remedy the defects listed above. Accordingly, Applicant respectfully submits that independent claims 1, 13, 32, 49 and 56 are patentable over the cited art, considered alone or in combination. The above arguments apply to each of the dependent claims as well.

Conclusion

Applicant submits that all of the claims are now in condition for allowance, which action is requested. However, should there remain unresolved issues that require action, it is respectfully requested that the Examiner telephone Richard A. Dunning, Jr., Applicant's Attorney, at 831.420.0561 so that such issues may be resolved as expeditiously as possible.

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Respectfully submitted,

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